

Practitioner's Docket No.: 789_064

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Yukihisa TAKEUCHI, Tsutomu NANATAKI,
Natsumi SHIMOGAWA and Takayoshi AKAO

Ser. No.: 09/749,252

Group Art Unit: 2873

Filed: December 27, 2000

Examiner: Tra, T.

Confirmation No.: 5799

For: DISPLAY DEVICE AND METHOD FOR PRODUCING THE SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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JUN 3 - 2003

TECHNOLOGY CENTER 2800

REQUEST FOR RECONSIDERATION

Sir:

The following remarks are in response to the Office Action mailed February 3, 2003.

Claims 1, 2 and 4-32 are pending herein. Applicants appreciate the indication that claims 6-30 have been allowed, but for the reasons explained below, it is respectfully submitted that the remaining pending claims in this application are also in condition for allowance.

1. The PTO objected to Figs. 1, 4, 15 and 39 in paragraph 1 of the Office Action. This objection is respectfully traversed.

Fig. 1 shows that picture element assembly 58 contacts optical waveguide plate 14 (in accordance with the elasticity of thin-walled section 12a) while no voltage is being applied to the actuator element (i.e., in the no load state; see specification page 28, lines 15-18). Figs. 4 and 39 show substantially the same structure. Accordingly, as recited in pending claim 1, Figs. 1, 4 and 39 each illustrate that light is emitted from the optical waveguide plate when

CERTIFICATION OF FACSIMILE TRANSMISSION

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Tara L. Preston

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the actuator element is not being energized by a driving source. That is, Figs. 1, 4 and 39 show the actuator element of the claimed display device in a no load state, and not in a "state of load," as asserted on page 2 of the Office Action.

With respect to Fig. 15, that figure illustrates an intermediate process step of hardening picture element assembly precursor 58a while it abuts against optical waveguide plate 14 (see lines 12-14 of pending claim 6 and specification page 53, line 18--page 54, line 16). Accordingly, while Figs. 1, 4 and 39 each show the picture element assembly disposed closely to or in contact with the optical waveguide plate while the actuator element is not being energized by a driving source, Fig. 15 illustrates an intermediate processing step in which electrical voltage is applied to the actuator element, on which the picture element assembly precursor is positioned, to cause the picture element assembly precursor to abut against the optical waveguide plate while hardening to form the picture element assembly.

As is clear from the above, Figs. 1, 4, 15 and 39 are neither inconsistent with the features recited in the claims nor are they inconsistent with the teachings in the present specification. Accordingly, in view of all of the foregoing, reconsideration and withdrawal of the drawing objection are respectfully requested.

2. Claims 1-5, 31 and 32 were rejected under §102(b) over Takeuchi et al. (assigned to the same assignee as that of the present case). This rejection is respectfully traversed.

With reference to Fig. 1 of the present application, pending independent claim 1 recites, among other things, that a picture element assembly 58 is disposed closely to or contacts optical waveguide plate 14 while the actuator element is in a state of no load (i.e., the actuator element is not being energized by a driving source).

Pending independent claim 31 recites, among other things, that the picture element assembly and the optical waveguide plate are brought into pressed contact with one another upon the application of a voltage that has a polarity that is opposite to the polarity of the voltage that is applied to the actuator element to separate the picture element assembly from the optical waveguide plate.

Fig. 1 of Takeuchi '275 shows that a displacement-transmitting section 32, which is positioned on a main actuator element 30, is brought into contact with optical waveguide plate 12 upon the application of voltage to the main actuator element. Accordingly, Takeuchi

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'275 discloses that displacement-transmitting section 32 and optical waveguide plate 12 are in contact with one another only when voltage is being applied to the actuator element (i.e., the actuator element is in a state of load). For example, it is explained in Takeuchi '275 that displacement-transmitting section 32 contacts the back surface of optical waveguide plate 12 in response to bending displacement of main actuator element 30, which, in turn, causes light to be transmitted from optical waveguide plate 12 (see Col. 19, lines 60--Col. 20, line 5 of Takeuchi '275).

In contrast to Takeuchi '275, as explained above, pending independent claim 1 recites that the picture element assembly is disposed closely to or contacts the optical waveguide plate while no voltage is being applied to the actuator element. This makes it possible to reduce the electric power consumption of the display device, which in turn, reduces the overall driving cost of operating the claimed display device (see specification page 12, lines 13-22). Again, Takeuchi's displacement-transmitting section 32 (which is positioned on main actuator element 30) does not contact optical waveguide plate 12 while actuator element 30 is in a "no-voltage-load state" (see Col. 19, lines 16-28 of Takeuchi '275).

With respect to pending independent claim 31, while Takeuchi '275 establishes that displacement-transmitting section 32 can be pressed against the waveguide plate by means of the displacement force of the main actuator element, it is respectfully submitted that there is no disclosure in Takeuchi '275 that displacement-transmitting section 32 is brought into contact with the optical waveguide plate using a voltage having a polarity that is opposite to the polarity of the voltage that is applied to the actuator element to separate displacement-transmitting section 32 from the waveguide plate, as claimed. Instead, it is respectfully submitted that Takeuchi's displacement-transmitting section 32 is separated from the optical waveguide plate upon restoring the actuator element to a state of no load (i.e., by stopping the application of voltage to the actuator element). In the event that the PTO again rejects pending claim 31 over Takeuchi '275, the PTO is requested to specifically point to some disclosure in Takeuchi that supports the PTO's argument.

In view of all of the foregoing, reconsideration and withdrawal of the §102(b) over Takeuchi '275 are respectfully requested.

Applicants appreciate the indication in PTO Paper No. 18 (electronically transmitted February 28, 2003) that the co-pending applications listed in the

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Information Disclosure Statements filed on March 26, 2002, September 16, 2002, and November 20, 2002 have been read and considered during the prosecution of the present application. The PTO is requested to enter a similar statement in the record indicating that co-pending application 10/167,841, which is listed in the Information Disclosure Statement filed on June 27, 2002, has also been read and considered during the prosecution of the present application.

In addition to the above, the PTO is requested to confirm receipt and consideration of the Information Disclosure Statements filed June 13, 2001 and March 14, 2003 (received in the PTO on March 20, 2003).

As discussed with Applicants' representative (Steven Caldwell) during a telephone conversation on June 2, 2003, in the event that Examiner Tra intends to again reject the claims, he is requested to telephone the undersigned before issuing the next Office Action.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

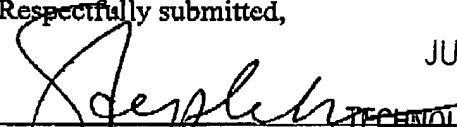
Respectfully submitted,

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June 3, 2003

Date


Stephen P. Burr
Reg. No. 32,970

TECHNOLOGY CENTER 2800

SPB/SC/eav

BURR & BROWN
P.O. Box 7068
Syracuse, NY 13261-7068

Customer No.: 025191
Telephone: (315) 233-8300
Facsimile: (315) 233/8320